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ABSTRACT

The Michigan Department of Education conducts an annual follow-up survey to determine the employment and continuing educational status of students who have graduated or withdrawn from its secondary vocational education programs. This standard survey form was modified by presenting a range of values and increasing the question length to improve the rate and the quality of the data collected. Six participating districts were randomly assigned to data collection (mail, phone, or mixed) and were then randomly half-sampled. The overall response rate for both the modified mail and phone format was significantly higher than for either of the standard formats. The lack of a screening question for employment confounds whatever effects the format modifications might have made. The results indicate no pronounced pattern in the mailed item response rates. Further, it is only if the phone interviewers react positively to the form that one might expect to see improvement in overall response rates for the modified phone group. However, no systematic measures of interviewer attitudes towards the standard or modified forms were attempted. The appendices include the standard and modified forms for both the mailed questionnaire and the phone interview. (PN)

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The Effects of Questionnaire Modification on Response Rates: A Field Experiment

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TM 850 539

The Effects of Questionnaire Modification on Response Rates:

A Field Experiment

Introduction

Surveys have been used regularly over the last six decades as a means of gathering data on important social issues. They have been utilized in ways ranging from predicting voter behavior to developing a new product based on an analysis of consumers' needs.

Surveys may take a variety of forms. In the past most large scale survey organizations have used face to face interviewing. Increased costs, however, have led to telephone interviewing as a popular alternative (Groves & Kahn, 1979; Dillman, 1981). Smaller organizations and studies of registered populations, e.g., employees of a firm, have traditionally used mailed questionnaires when accumulating data via surveys.

The most obvious difference among the three modes of data collection mentioned above is cost. Face to face surveys which employ field interviewers incur more costs than the other methods due to the travel and personnel involved. Telephone interviewing from a central location can reduce the costs of face to face interviewing by 40-50 percent (Groves & Kahn, 1979). Still less expensive is the mailed questionnaire which employs no interviewers and can generally be conducted for little more than the price of paper and postage.

For gathering information on the attitudes and opinions of subjects or their demographic classification, the survey compares favorably in terms of cost with other data collection methods. For example the use of observation to determine an individual's attitudes can be a lengthy,

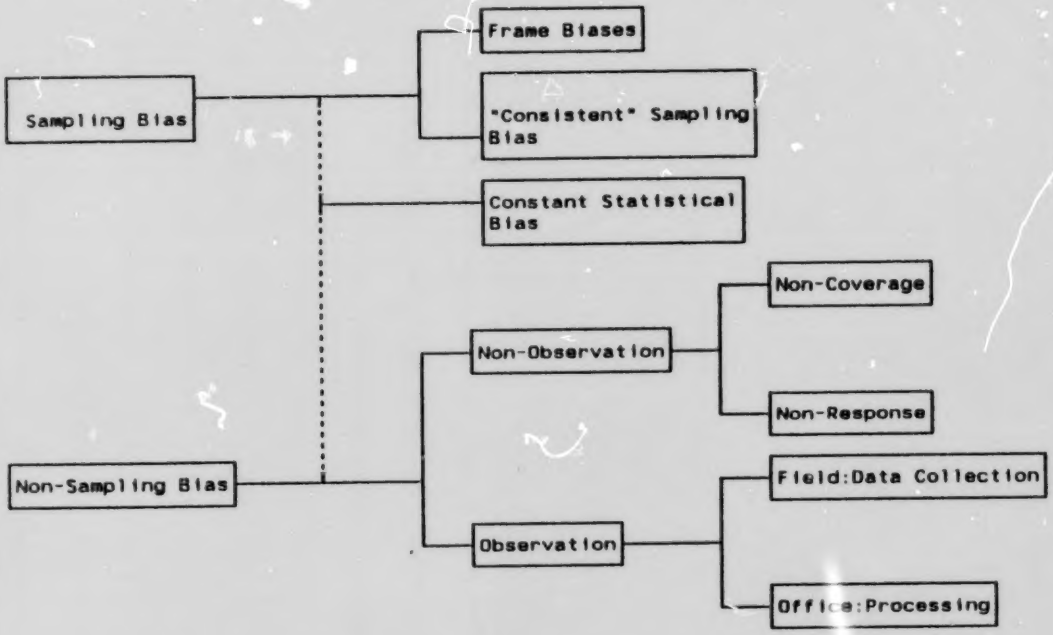
expensive process. Record checks may provide more "valid" data, but may be more expensive (and more limited in scope) than is desirable for the purposes of the study.

However, survey techniques are not perfect. Deming (1944) documents thirteen factors which affect the ultimate usefulness of a survey. Kish (1965) has also outlined a comprehensive taxonomy for classifying the errors suggested by Deming. His taxonomy is reproduced in Figure 1.

Only a few of the types of errors discussed by Deming (1944) and Kish (1965) have received systematic attention. By far, most of the inquiry has centered around sampling errors, probably because the properties of sampling design are comparatively easy to manipulate and observe. A well-articulated statistical sampling theory has been developed; but even generous estimates ascribe little variability to sampling considerations.

Some non-sampling errors elude social science investigators because they are hard to control and measure due to implicit design considerations. For example, choosing to utilize a mail questionnaire may be grounded in a series of important and overriding concerns, e.g., belief in the homogeneity of the population, accessibility to the population, cost, etc. Nevertheless, mail questionnaires typically receive lower response rates, are restricted by the format in which questions can be asked, make assumptions about the verbal comprehension skills of the targeted population, and are dependent on the performance of the U.S. Postal Service. These factors might tend to bias the results of the survey, e.g., only those with positive attitudes concerning the topic would respond, or at least affect the

Figure 1
Model of Error Classification
(Adapted from Kish, 1965)



interpretability of interrelationships among variables (Suchman, 1962). The bias implicit in the use of the mailed questionnaires may not be self-evident to the researcher because he/she may have embraced a method of data collection prior to assessing its overall utility with respect to his/her problem.

Statement of the Problem

Each year the Michigan Department of Education, with the cooperation of local state fiscal agencies, conducts a follow-up survey to determine the employment and continuing education status of "completers"[1] and "leavers" enrolled in secondary vocational education programs during the year prior to the study.

Since initiation of the follow-up in 1973, fiscal agencies have been moving gradually from extensive reliance on mailed questionnaires to the telephone interview for data collection because of the increased response rates normally obtainable by this method. From 1975 to 1979 the response rate increased from 65 to 77 percent (Davidson, 1980) partly as a result of this shift of collection mode.

Most organizations collect telephone data from one centralized location for the following three important reasons:

(1) Individual interviewers can be monitored to ensure that their question-asking behavior conforms to the intent and objectives of the interview schedule.

(2) Training of interviewers is greatly facilitated when it can be accomplished in a central location.

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[1]Of students who have left school, those who have completed the local requirements for a vocational education program are termed "completers" and those who are enrolled in a program but did not complete it are termed "leavers".

(3) A central base of operation has been associated with lower survey costs (Eastlack and Assad, 1966).

In Michigan, however, the Department of Education employs the decentralized approach with the annual follow-up. The three basic reasons for this are:

(1) The Department of Education has maintained a policy of not handling data which can identify individuals.

(2) There is presently no state facility which can easily be devoted to gathering data on more than 50,000 students.

(3) A proportion of the survey's costs can be spread over the school districts involved in the annual follow-up.

A decentralized interviewing approach is not without precedent. The Survey Research Center at the Institute for Social Research has long maintained a staff of face to face interviewers throughout the 48 contiguous United States. The performance of these interviewers is monitored by field supervisors who report directly to the central office. The field supervisor also oversees the teaching of field interviewers on the objectives of the survey schedule and the training in any techniques required for the accomplishment of a given study.

The shift of data collection mode from mailed questionnaires to telephone interviewing was one important factor which prompted the Department of Education to reassess the quality of data which were gathered in the student annual follow-up. Data quality in this sense refers to data which are not systematically biased, e.g., response bias. The Department desired such feedback because its staff perceived that the survey had greater impact in legislative processes than ever before. If these data were biased, the Department could be held accountable for

providing law-makers misinformation. The basic question which drove this study was:

Are there changes in interview forms and/or procedures which improve the rate and quality of the information gathered and are consistent with the federally mandated objectives of the survey?

Review of the Literature

The wording of questionnaires has long been of methodological concern and has often influenced the validity of a survey. Link and Freiberg (1942) showed how wording can significantly affect a survey's results by citing a survey question which read:

"Which of these do you think is the main cause now holding back greater prosperity in this country?
(a) Business Leaders
(b) New Deal
(c) Labor"

In this form, Business Leaders were blamed as the main culprit by a plurality of the respondents; however when alternative (c) "Labor" was replaced with "Labor Union", the change was dramatic. Labor Unions became the most often named obstruction to greater prosperity.

Anderson and Berdie (1974) developed a sophisticated set of strategies for the formatting of questions in surveys including: question sequence, questionnaire layout, and question wording. As an illustration, when trying to obtain demographic information such as age from a respondent, rather than ask:

How old are you?

they instead suggest:

What was your date of birth?

Day--/Month--/Year--

The second wording sequence should not only produce a more valid response (unless the respondent has some reason for not wishing to provide the correct information), but also a more precise answer.

The validity of respondents' answers was of concern to the Department of Education project personnel, as was a reduction in item non-response rates. They postulated that both might be influenced if questions were worded/formatted in an alternative fashion. For example, one question on the annual follow-up asks the respondent to report his/her hourly rate of pay. Questions eliciting income information typically fail to achieve high response rates. This is evidenced here by a 32 percent non-response rate for the 1980 data gathered by phone from those vocational education graduates who were employed. The non-response rate for the same item on mail questionnaires is substantially lower at about 12 percent, but is high in comparison to non-response rates for other demographic questions. It was thought by asking for grouped income distributions, e.g., a range of values, that mailed questionnaires would attain a higher item response rate.

For telephone interviews, it was hypothesized that by asking for less precise information, e.g., using an unfolding technique (a sequence of dichotomous questions), a higher item response rate might be obtained. With the unfolding technique (Locander and Burton, 1976; Groves and Kahn, 1979) the interviewer can elicit sensitive information by asking a series of funneled questions until a respondent arrives at some appropriate categorical response. The attraction of the unfolding technique stems from the fact the respondent need only answer a series of dichotomous questions. He need never indicate a precise amount. Figure 2 shows an example of an unfolding question. If a respondent

Figure 2
Example of an Unfolded Question
(Groves & Kahn, 1979)

Was your approximate total family income in 1976 before taxes 15,000 dollars or more, or was it less than 15,000?

15,000 dollars or more	less than 15,000 dollars

Was it 20,000 or more or was it less than 20,000?

20,000 dollars or more	less than 20,000 dollars

Was it it 12,000 or more or was it less than 12,000?

12,000 dollars or more	less than 12,000 dollars

Was it 25,000 or more or was it less than 25,000?

25,000 dollars or more	less than 25,000 dollars

Was it it 8,000 or more or was it less than 8,000?

8,000 dollars or more	less than 8,000 dollars

Was it 35,000 or more or was it less than 35,000?

35,000 dollars or more	less than 35,000 dollars

Was it it 5,000 or more or was it less than 5,000?

5,000 dollars or more	less than 5,000 dollars

A. Under $2000	K. $11,000-$12,499
B. $2000-$2999	L. $12,500-$14,999
C. $3000-$3999	M. $15,000-$17,499
D. $4000-$4999	N. $17,500-$19,999
E. $5000-$5999	P. $20,000-$22,499
F. $6000-$7499	Q. $23,000-$24,999
G. $7500-$8999	R. $25,000-$29,999
H. $9000-$9999	S. $30,000-$34,999
J. $10,000-$10,999	T. $35,000 and over
X. Didn't work in 1975	

was hesitant to provide income information over the phone, the interviewer might resort to the unfolding technique in order to obtain information that least indicated a range of values. The rationale for using the "less information" approach stems from the presupposition that when requested to provide sensitive information, respondents are more likely to associate themselves with a range of values rather than with one specific value.

Another aspect of the format change revolves around the amount of effort respondents have to put forth in order to answer the attitudinal questions. It might be hypothesized that giving a longer stimulus and merely requiring the same length response may result in the respondent giving more consideration to the question as a way of compensating the interviewer for her effort. The literature provides examples in which an increase in the intensity of the stimulus, e.g., length of the question, leads to an increase in the quantity of a response (Cieutat, 1964; Greenspoon, 1955; Hildum and Brown, 1956; Krasner, 1958; Ogawa and Oakes, 1965; Salzing, 1959; Shaffer, 1955). This is not to imply that longer responses are of better quality; however, Bradburn, Sudman, and Associates (1979) concluded in an extensive review of the literature that

> Response effects for threatening items decrease with increasing question length, and thus longer questions (exceeding thirty words) may be most appropriate for threatening topics (p. 15).

Increasing the length of the question should produce a more thoughtful response for two reasons:

(1) It would tend to diffuse the salience of an otherwise (potentially) sensitive task by delimiting or fully explaining the need to know such information.

(2) A longer question might impress upon the respondent the importance (or value placed upon) the attitudinal data.

On the other hand, it could be argued that reduced threat is simply increased ambiguity. This need not be the case. As previously mentioned, questions which request the respondent to provide income information traditionally do not fare well in terms of achieving high response rates. Many respondents object to this type of question because they feel the information is sensitive, personal, or inappropriate for the interviewer to know.

Questions concerning income, if properly explained, may still be perceived as sensitive or personal, but it is possible that the information might now be perceived as appropriate for the interviewer to ask. In other words, by proper explanation, the interviewer has motivated (persuaded) the respondent to answer a question he might otherwise refuse.

As with most pragmatic models, there are inevitable tradeoffs in efficiency. One may devise a longer question in such a way that it is ultimately incomprehensible to the respondent. The question, while perhaps a bit longer, still requires the clarity and conciseness which characterizes all good items.

While question length, i.e., number of words, is a relevant variable for phone interviews, sites where information is gathered by mail provide an opportunity to utilize graphical alterations in response categories. It was thought that such alterations on attitudinal questions would make them appear slightly more attractive than the standard format. By making them slightly more "attractive" than the standard format, higher response rates might be obtained. For

example, Question 6 of the follow-up survey which asks the respondent to rate how well his/her vocational education training relates to her/her present job, might incorporate a ladder or straight line continuum rather than the standard response categories it presently uses. (See Figures 3 & 4).

In the case where the length of the questions had been altered, it was hypothesized that graphics changes will make the response alternatives slightly more attractive counteract the possible distraction that a longer question might impose.

Based on the rationale presented above, the following hypotheses emerged:

H1: Item non-response will be lower for data collected by modified mail than for data collected by standard mail forms.

H2: Item non-response will be lower for data gathered on modified telephone forms than for data gathered on standard telephone forms.

H3: The response variance will be greater for attitudinal questions on modified forms than for standard forms.

Instrumentation

Each year the Michigan Department of Education conducts a census follow-up of former vocational education students from Michigan secondary public schools. The standard instrument used for data collection consists of a series of 14 questions designed to elicit information about respondents': (1) high school education, (2) employment status, and (3) demographic classification.

Schools must also provide the following information for each former vocational education completer or leaver:

Figure 3
An Example of a Straight Line Continuum
Response Card (Adapted from Groves & Kahn, 1979)

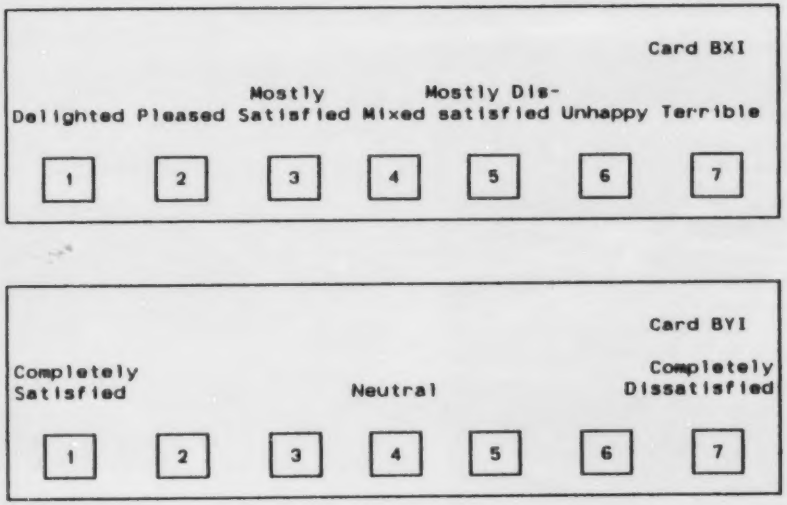
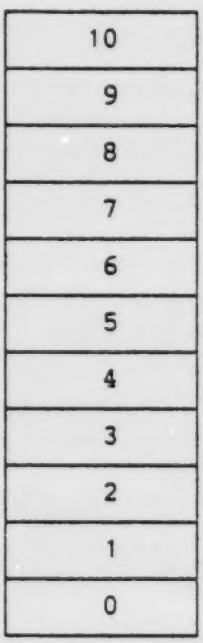


Figure 4
An Example of a Question Which
Utilizes a Ladder Response

A2. Here is a picture of a ladder. It describes how contented a person is with his or her life. Number ten at the top of the ladder represents the very best possible situation that you could imagine for yourself. And zero at the bottom of the ladder represents the worst possible situation for you.



A2a. All things considered, which number on the ladder represents how satisfied you are overall with the material side of your life today--the things you can buy and do all all the things that make up your material standard of living?

[ ] 98.DK

A2b. Where on the ladder would you have put yourself five years ago?

[ ] 98.DK

1) Type of vocational education program the respondent was enrolled in.

2) Whether the respondent was a completer or leaver.

3) Whether or not the respondent was a high school graduate.

4) Whether or not the respondent participated in a cooperative education program.

5) Whether or not the respondent was classified as handicapped, disadvantaged, and/or of limited English proficiency.

6) Whether or not the respondent was a participant in a special needs program.

7) If the respondent was in a special needs program, whether or not the respondent was enrolled as handicapped, disadvantaged, or of limited English proficiency.

8) Whether the respondent was contacted by phone or by mail.

Once this information is provided from the school records, the survey is administered to the targeted students, during the first two weeks in April. Data collection is authorized by the Department of Education in one of three modes: (1) self-administered mailed questionnaires, (2) telephone, or (3) a combination of mailed questionnaires and telephone.

Target Population

The target population for the 1981 annual student follow-up consisted of former vocational education students from Michigan secondary public schools who were designated completers or leavers as on June 30, 1980.

Because data are gathered at the district/fiscal agent level and not from one central location, it was considered desirable to form half

samples within each district cluster in order to provide a comparison group within each cluster. Half-sampling is a procedure where 50 percent of the sample is randomly allocated to an experimental group and 50 percent is allocated to a control group. In order to implement this process it was felt that each participating school district would have a minimum of two school buildings. This stipulation was initiated in order to cut down on the possible contamination (and confusion) which is associated with any experimental procedure.

Three other criteria were established for screening district participants in the study. The first criterion stated that there be at least fifty vocational education completers and leavers from each building. The estimates for building counts were derived from a document which the district fills out each June to report the number of vocational education students enrolled during the year. The second criterion required that the building offer a minimum of three vocational to its students. This requirement was imposed as a way of ensuring heterogeneity of student types, since differences between respondents may be a function of what vocational education program they participated in. The third selection criterion specified that district which used the phone method of data collection must ensure that at least two telephone interviewers were employed.

These participant restrictions functionally redefined the population for the study. While the group of interest is all former Michigan vocational education students, the constraints listed above limit any inferences made to those students enrolled in 1980 whose districts meet the participant conditions. The selection criteria

excluded almost all rural districts, which make up approximately 20 percent of the statewide school enrollments.

Of the available school districts, 6 were randomly selected to participate in the format modification experiment. The name of the school districts used throughout this paper have been changed according the wishes of the Michigan Department of Education.

Table 1 shows the categorization of the districts which participated in the format modification experiment.

Table 1
Districts Participating in the
Format Modification Experiment

Phone	Mail	Mixed
Martinsburg	Deaver	Northern
Costner	Farwell	Eden

Participating districts were randomly assigned to data collection (mail, phone, or mixed). Those districts which fell into the Phone X Format, Mail X Format, and Mixed X Format interventions were then randomly half-sampled. That is, half of the respondents within the district received the standard mailed questionnaire and half received the modified questionnaire. The random half sampling consisted of choosing a random start point of either a 1 or a 2 and then assigning each respondent to the: 1) standard or 2) modified group.

Mail by Format

The modification to the standard mailed questionnaire consisted of alterations to five questions. Additionally, the color of the modified

questionnaire was changed from a harvest gold to buff[2], so that the type of format could be easily identified by district personnel. The general directions and the remaining nine questions were exactly the same as for the standard form.

The five question changes are presented in Figures 5-9. These figures represent the intent and content of the changes, but are not exactly to scale. The standard and modified forms are reproduced in Appendices A and B.

The format change to Q2 consisted of lengthening the question and widening the response range. The rationale presented previously outlines the expectation that respondents will give more careful consideration to a longer question. Longer questions will explicitly delimit the information being requested. Therefore respondents will be less likely to mask embarrassing or socially undesirable responses. Additionally, longer questions will give the respondent more time to focus and think about his response. Expectations were that this careful consideration would translate into higher item response rates and a wider distribution of responses. One must bear in mind that this rationale is based on the assumption that the "true" distribution has a larger variance and that the consideration given a longer question would lead one closer to the truth. In order to equate the two scales, the responses of the modified form were divided by two.

The format change to Q4 transformed the original request for the number of hours per week worked to a set of ranges for which the

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[2]The color change can be a manipulative variable. Erdos (1970) suggests that questionnaires of white or off-white color stationery in contrast to colored stationery increase response rates. Since both forms were colored, it was thought that the effect of color would be minimal. The administrative concern of sorting out the forms was also thought to be more important than the potential impact of the color change.

Figure 5
Question 2 Original and in Modified Form

Original

2. In your major area of study (or training), how much do you use the vocational training you received in your high school or area vocational education center? (Check ONLY ONE.)

1	A lot
2	Some
3	Hardly Any
4	None

Modified

2. Please think about how much you use the vocational training you received in your high school or area vocational center in your major area of study. The ladder stands for how much you use that training in your major area of study. The top step means you use the training "A lot". The bottom step means you use "None" of your training. Mark the step on the ladder which shows how much you use your vocational training.

A lot

None

Figure 6
Question 4 Original and in Modified Form

Original

4. If you are working for pay, about how many HOURS PER WEEK do you work? Write the number of hours per week in the box.

☐

Modified

4. If your are working for pay, about how many hours/week do you work? (Mark the correct box)(†)

☐ Not Working

☐ 1-10 hours

☐ 11-20 hours

☐ 21-30 hours

☐ 31-34 hours

☐ 35 + hours

(†) A misreading of the modified proof copy resulted in the inclusion of the phrase "hours/week" rather than HOURS PER WEEK as on the standard form. Technically, then, the change on the question is not only in the response categories, but in the wording of the question as well.

Figure 7
Question 5 Original and in Modified Form

Original

5. On your present job, how much do you use the vocational training you received in your high school or area vocational education center? (Check ONLY ONE.)

1	A lot
2	Some
3	Hardly Any
4	None

Modified

5. Please think about how much you use the vocational training you received in your high school or area vocational center on your present job. The ladder stands for how much you use that training on your present job. The top step means you use the training "A lot". The bottom step means you use "None" of your training. Mark the step on the ladder which shows how much you use your vocational training.

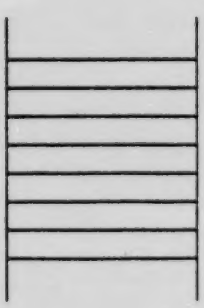

Figure 8
Question 6 Original and in Modified Form

Original

6. Overall, how satisfied are you with your present job? (Check ONLY ONE.)

1	Very satisfied
2	Somewhat satisfied
3	Not very satisfied
4	Not at all satisfied

Modified

6. Overall, how satisfied are you with your present job? (Check ONLY ONE.)

Very Satisfied	Somewhat Satisfied	Not very Satisfied	Not at all Satisfied

Figure 9
Question 7 Original and in Modified Form

Original

7. On my present job I am paid about
$_____ per hour.

Modified

7. On my present job, I am paid.....
(Mark the correct box)

☐ 0.01-2.34 per hour

☐ 2.35-3.34 per hour

☐ 3.35-4.34 per hour

☐ 4.35-5.34 per hour

☐ 5.35 + per hour

respondent could check the appropriate category. Answers in the range 1-10 were coded as 10 hours; answers 11-20 were coded as 20 hours; answers 21-30 were coded as 30 hours; 35+ was coded as 40 hours. It was expected that respondents would be more willing to provide "less precise" information than furnish an exact figure. "Less precise" information allows the respondent to be identified with a range of responses rather than with one particular response. This identification with a range of responses would be particularly helpful in administering questions which evoke socially desirable answers. Note that the level of precision required by the Department of Education was such that the ranges were considered acceptable. The ranges given in the modified version of the questionnaire follow criteria set by the Department of Education. For example, anything greater than or equal to 35 hours per week is considered to be full-time employment.

The changes made to Q5 follow from the same rationale applied for Q2. The alterations to Q6 were graphic modifications designed to make it more physically attractive. The graphic modification was a conversion from the standard questionnaire form to a form which follows some of the more typical "show cards" administered with face to face interviewers. The purpose of this change was simply to see if graphic alterations would affect response rates more or if changes to the actual question, e.g., Q2 or Q5, would be a more potent force in improving item response. It should be noted, however, that the focus of Q6 is different from Q2 and Q5 and does not serve as a true control.

The changes to Q7 follow the same rationale underlying the alterations to Q4. Again, the categories used in coding the responses for the modified form were drawn from criteria set by the Department of

Education. For example, at the time, $3.35 was the official minimum wage.

Results and Discussion

The first hypothesis specifically applies to a test of item response rates. However, prior to examining item response rates, it would prove helpful to look at the overall response rates for the standard/modified forms. Table 2 displays this information.

Table 2
Overall Response Rates by Format Group (Mail Only)

Format Group	N	Contact Response Rate	t-stat (*)	signif. at
Standard	174	21.58	34.52	.001
Modified	245	32.03		

(*) Two tailed t-test

As can be seen in Table 2, the overall response rate for the modified questionnaire was significantly higher than for the standard mailed questionnaire. The procedure for data collection was the same across all districts participating in this part of the study. A random selection of half of the respondents within a district was mailed the standard form; the other half were mailed the modified form. While the results presented in Table 2 are somewhat encouraging, they do not by any means suggest that the modifications to the questionnaire were solely responsible for the increase. The modifications were designed to

positively affect single items rather than the entire questionnaire. However, Dillman (1981) suggests that one single item can cause a person to become a non-respondent. According to this rationale it is possible that the modified form reduced the saliency of an otherwise "objectionable" item. Non-respondents in the group with the standard form may have decided not to return the questionnaire on the basis of any one or more of the five questions. Again, it is important to remember that the items modified were ones which typically elicited lower response rates in previous years of the follow-up.

Table 3 displays the item response rates for the two groups. Item response rates for Q1 and Q10-Q14 which were not altered from the standard format, were actually lower for the modified group. Q2, a modified item, shows no significant difference in response rates between the groups; almost everybody in both groups answered this question. For Q3 (not modified), the item response rates were also the same for both groups (100%).

The effects of the modifications to Q4 must be interpreted from the item responses to Q5 and Q6. Note that the calculations for item response on Q5, Q6, and Q7 are based on responses to Q4. If a respondent answers Q4, then questions 5-7 are appropriate. Table 3 shows that for the modified mail questionnaire, only two of the four questions were effective in increasing item response rates (Q2 and Q6). For the other two questions (Q5 and Q7) the standard form displays higher item response rates. The interpretation of Q4 data is inconclusive because there is no employment screening question.[3] A

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[3]The screening question asked in the subsequent 1981-1982 follow-up is "Are you now working for pay? __yes/__no".

Table 3
Item Response Rates for Standard
versus Modified Forms (Mail Only)

Question No.	Standard N=175		Modified N=245		t-stat'†'	signif. at ≤
	N	%	N	%		
Q1. % Continuing Educ	173	99.4	239	99.6	23.06	.001
Q2. Training Related	101'*'	99.0	174'*'	100.0	10.15	.001
Q3. % 4 Year Coll	102'*'	100.0	174'*'	100.0	0.00	ns
Q4. Hours per Week	85'*'	48.9	128'*'	52.2	'*'	
Q5. Work Related	85'*'	100.0	123'*'	96.1	25.44	.001
Q6. Job Satisf.	81'*'	95.3	124'*'	96.9	5.87	.001
Q7. Wage	78'*'	91.8	117'*'	91.4	1.35	ns
Q9. % Superv. Cont	77'*'	90.6	116'*'	90.6	0.00	ns
Q10. % Seek Employ	167	96.0	227	92.7	20.08	.001
Q11. % Milt. Serve	171	98.3	233	95.1	26.81	.001
Q12. % Homemaker	169	97.1	225	91.8	33.81	.001
Q13. % Male	171	98.3	237	96.8	14.99	.001
Q14. % White	171	98.3	236	96.3	18.16	.001

'†' Two tailed t-test

'*' For the standard group, 102 of the 174 respondents indicated that they were in a program of higher education.

'*' For the modified group, 174 of the 245 respondents indicated that they were in a program of higher education.

'*' Because no screening question is asked of respondents as to whether or not they work, the denominator used is the overall N for the subgroup of standard (N=174).

'*' Because no screening question is asked of respondents as to whether or not they work, the denominator used is the overall N for the subgroup of modified (N=245).

'*' The denominator here is 85, the number of respondents who gave an answer to Q4 on the number of hours worked per week.

'*' The denominator here is 128, the number of respondents who gave an answer to Q4 on the number of hours worked per week.

'*' No t-statistic was calculated for this item due to lack of screening question for Q4 (Hours per week).

screening question for Q4 would have indicated an appropriate denominator upon which the item response rate could be calculated.

These results are somewhat disheartening. The lack of a screening question for employment confounds whatever effects the format modifications might have made. Nor is there a pronounced pattern in the item response rates. For example, on Q2 and Q6, attitudinal variables, the modified group response rates were higher. Response rates for Q5 and Q7, one attitudinal variable and one demographic variable, were higher for the standard group. The response pattern does not conclusively show what type of variable for which format modification would be most effective (or ineffective).

Central Tendency Measures

Table 4 shows the means and proportions between the standard and modified groups for the mail format alterations. While all the means and proportions are significantly different, there again appears to be no definitive systematic trend to those differences. On the attitudinal questions, Q2, Q5, and Q6, respondents in the standard group have higher ratings to Q2 and Q5, but lower ratings to Q6. Respondents from the modified form group reported higher attendance in a program of higher education and college than did respondents from the standard form group. Larger proportions of respondents from the modified form group were employed, but worked fewer hours (27.40 per week versus 30.67 per week) and earned less money ($4.02 per hours versus $4.89 per hour) than their standard form counterparts. Respondents from the modified form group expressed a greater willingness to have their employers contacted by an outside agency for employer follow-up (72.4% versus 62.3%). This willingness was not related to the item response rates for Q9 (% Superv.

Table 4
Comparison of Responses for Standard versus Modified Samples (Mail Only)

Question No.	Overall Census			Standard Sample			Modified Sample			Deff	t-stat'†'	signif. at ≤
	Mean	SE	N	Mean	SE	N	Mean	SE	N			
Q1. % Continuing Educ	.437	.003	37528	.590	.087	173	.728	.073	239	2.00	12.35	.001
Q2. Training Related'‡'	2.10	.019	16124	2.39	.091	99	2.06	.241	173	1.86	11.82	.001
Q3. % 4 Year Coll	.300	.000	15970	.427	.090	103	.483	.111	174	4.91	2.07	.03
Q4. Hours per Week	34.71	.074	23234	30.67	3.21	85	27.40	4.32	128	4.50	2.98	.004
Q5. Work Related'‡'	2.41	.018	21970	2.39	.091	99	2.40	.174	125	.920	.377	ns
Q6. Job Satisf.	1.86	.014	21640	1.93	.120	87	1.80	.124	126	3.09	4.34	.001
Q7. Wage	4.16	.014	17824	4.89	.416	79	4.02	.556	119	.384	20.22	.001
Q9. % Superv. Cont	.657	.000	15066	.623	.070	77	.724	.061	116	2.26	7.06	.001
Q10. % Seek Employ	.387	.000	36305	.413	.074	167	.432	.007	227	1.77	2.89	.005
Q11. % Milt. Serve	.058	.000	36424	.070	.042	171	.038	.014	233	4.01	5.41	.001
Q12. % Homemaker	.084	.000	35960	.071	.018	169	.084	.028	225	2.08	3.16	.001
Q13. % Male	.487	.000	38960	.345	.057	171	.376	.034	237	.575	9.04	.001
Q14. % White	.885	.000	38271	.953	.025	171	.970	.015	236	3.790	4.39	.001

'†' Two tailed t-test is for "standard" versus "modified" districts
'‡' Scale adjusted for the modified group by taking 1-8 rating and dividing it by two in order to equate to standard group scale.

Cont.) as both groups had identical response rates for this question (90.6%). Moreover, greater proportions of respondents from the modified group were looking for jobs (43.2% versus 41.3%), were homemakers (8.4% versus 7.1%), male (37.6% versus 34.5%) and white (97.0% versus 95.3%). A smaller percentage of this group was, however, in the military service (3.8% versus 7.0%). Because half-samples within all districts were used to allocate respondents to format type, the means and proportions presented in Table 4 should not have been confounded with district effects. While differences in respondent characteristics were not hypothesized, the data from this table suggests that different subclasses of respondents were captured by the standard and modified formats. It therefore seems possible to modify the format to capture subclasses of respondents which, based on school record data, are not proportionately represented on the annual follow-up census.

Telephone by Format

The modification to the standard telephone interview consisted of alterations to five questions. The general directions and remaining nine questions were exactly the same as for the standard form with one exception. Telephone interviewers were told to code the answers from the standard form onto a standard mailed questionnaire form. This is essentially the same procedure that they had followed in previous years. However, interviewers using the modified form were directed to code responses directly in boxes on the modified script itself (see Appendix C).

Three considerations entered into the decision to proceed in this fashion. The first consideration had to do with the survey content. The standard interview script was directly transferable to the standard

mailed questionnaire form. This was not the case with the modified questionnaire where the questions had been altered in different ways, depending on the mode of data collection used. The second consideration had to do with the cost of distributing a standard form script for each interview. The script itself is ten pages long, almost three times as large as the mailed questionnaire. The cost to print and distribute additional copies of the standard interview schedule in order to accommodate the N of the standard group was prohibitive. The last consideration had to do with interviewers' reactions to coding on an interviewer's script. This process had never been used before in the Department of Education survey. It was hoped that an interviewer's script would be clearer and ensure completeness. In debriefing the interviewers, however, it was discovered that while the script gave clearer directions, it's size made for cumbersome use and administration. The standard self-completed mail questionnaire could be handled by most interviewers with relative ease.

The five question changes are presented below in Figures 10-14. The standard and modified telephone interview schedules are shown in Appendices C and D.

It is immediately obvious that some of the changes in the phone script do not <u>exactly</u> parallel those of the mailed questionnaire, i.e., Q4, Q6, and Q7. The changes made to Q2 on the telephone interview schedule are equivalent to those changes made on the mailed questionnaire. It was expected that respondents would give more careful consideration to the longer modified questions. This greater care in answering the questions would translate into higher response rates and

Figure 10
Question 2 Original and in Modified Form

Original

Q2. IN YOUR MAJOR AREA OF STUDY (OR TRAINING), HOW MUCH DO YOU USE THE VOCATIONAL TRAINING YOU RECEIVED IN HIGH SCHOOL? (only one response)

...A LOT

...SOME

...HARDLY ANY

...NONE

Modified

Q2. PLEASE THINK ABOUT HOW MUCH YOU USE THE VOCATIONAL TRAINING YOU RECEIVED IN YOUR HIGH SCHOOL OR AREA VOCATIONAL CENTER IN YOUR MAJOR AREA OF STUDY. (Pause). NOW IMAGINE A LADDER WITH EIGHT STEPS ON IT WHICH STANDS FOR HOW MUCH YOU USE THAT TRAINING IN YOUR MAJOR AREA OF STUDY. THE TOP STEP MEANS THAT YOU USE THAT TRAINING IN YOUR MAJOR AREA OF STUDY "A LOT". THE BOTTOM STEP MEANS YOU USE "NONE" OF YOUR TRAINING. WHICH STEP WOULD YOU SAY STANDS FOR HOW MUCH YOU USE YOUR TRAINING?

...8 (OR TOP STEP)

...7

...6

...5

...4

...3

...2

...1 (OR BOTTOM STEP)

Figure 11
Question 4 Original and in Modified Form

Original

Q4. IF YOU ARE WORKING FOR PAY, ABOUT HOW MANY HOURS PER WEEK DO YOU WORK?

....HOURS ....NOT WORKING-------->GO TO Q10.

Modified

Q4. IF YOU ARE WORKING FOR PAY, ABOUT HOW MANY HOURS PER WEEK DO YOU WORK?

....HOURS ....NOT WORKING-------->GO TO Q10.

(If the respondent does not answer or says "don't know", use the following procedure)

Q4A. WOULD YOU SAY THAT YOU ARE WORKING MORE THAN 20 HOURS PER WEEK OR LESS? (If respondent says he/she is working about 20 hours, then code as 20 hours.)

...LESS THAN 20 HOURS

WOULD YOU SAY THAT YOU ARE WORKING MORE THAN TEN HOURS PER WEEK OR LESS? (If respondent says he/she is working about 10 hrs/wk, then code as 10 hrs.)

...LESS

Code as 5

...MORE

Code as 15

...MORE THAN 20 HOURS

WOULD YOU SAY THAT YOU ARE WORKING MORE THAN THIRTY-FIVE HOURS PER WEEK OR LESS? (If respondent says he/she is working about 35 hrs/wk, then code as 35 hrs.)

...LESS

Code as 25

...MORE

Code as 40

Figure 12
Question 5 Original and in Modified Form

Original

Q5. ON YOUR PRESENT JOB, HOW MUCH DO YOU USE THE VOCATIONAL TRAINING YOU RECEIVED IN YOUR HIGH SCHOOL (OR AREA VOCATIONAL CENTER)? (only one response)

...A LOT

...SOME

...HARDLY ANY

...NONE

Modified

Q5. PLEASE THINK ABOUT HOW MUCH YOU USE THE VOCATIONAL TRAINING YOU RECEIVED IN YOUR HIGH SCHOOL OR AREA VOCATIONAL CENTER ON YOUR PRESENT JOB. (Pause). NOW IMAGINE A LADDER WITH EIGHT STEPS ON IT WHICH STANDS FOR HOW MUCH YOU USE THAT TRAINING ON YOUR PRESENT JOB. THE TOP STEP MEANS THAT YOU USE THAT TRAINING ON YOUR PRESENT JOB "A LOT". THE BOTTOM STEP MEANS YOU USE "NONE" OF YOUR TRAINING. WHICH STEP WOULD YOU SAY STANDS FOR HOW MUCH YOU USE YOUR TRAINING?

...8 (OR TOP STEP)

...7

...6

...5

...4

...3

...2

...1 (OR BOTTOM STEP)

Figure 13
Question 6 Original and in Modified Form

Original

Q6. OVERALL HOW SATISFIED ARE YOU WITH YOUR PRESENT JOB? (only one response)

...VERY SATISFIED

...SOMEWHAT SATISFIED

...NOT VERY SATISFIED

...NOT AT ALL SATISFIED

Modified

Q6. PLEASE THINK ABOUT HOW SATISFIED YOU ARE WITH YOUR PRESENT JOB OVERALL. AS IN THE QUESTION BEFORE, IMAGINE THAT SAME LADDER WITH EIGHT STEPS. THE TOP STEP NOW MEANS THAT YOU ARE "EXTREMELY SATISFIED" WITH YOUR PRESENT JOB OVERALL. THE BOTTOM STEP MEANS YOU ARE "EXTREMELY DISSATISFIED" WITH YOUR PRESENT JOB. WHICH STEP WOULD YOU SAY STANDS FOR HOW SATISFIED YOU ARE WITH YOUR PRESENT JOB?

...8 (OR TOP STEP)

...7

...6

...5

...4

...3

...2

...1 (OR BOTTOM STEP)

Figure 14
Question 7 Original and in Modified Form

Original

Q7. HOW MUCH ARE YOU PAID PER HOUR ON YOUR PRESENT JOB?

.....PER HOUR

(If respondent gives a weekly or monthly figure, divide the weekly figure by 40 or the monthly figure by 176 to come up with an equivalent hourly wage. If the respondent will not answer, ask whether he will give an hourly wage between ranges.)

Modified

Q7. HOW MUCH ARE YOU PAID PER HOUR ON YOUR PRESENT JOB?

.....PER HOUR

(If respondent gives a weekly or monthly figure, divide the weekly figure by 40 or the monthly figure by 176 to come up with an equivalent hourly wage. If the respondent will not answer or says "don"t know", then use the following procedure in Q7A.)

Q7A. WOULD YOU SAY THAT YOUR ARE PAID MORE THAN $4.35 PER HOUR OR LESS? (If respondent says he/she is paid about $4.35/hour, then code $4.35.)

...LESS THAN $4.35	...MORE THAN $4.35
WOULD YOU SAY THAT YOU ARE PAID MORE THAN $2.35 PER HOUR OR LESS? (If respondent says he she is paid about $2.35/hr, then code $2.35)	WOULD YOU SAY THAT YOU ARE PAID MORE THAN $6.35 PER HOUR OR LESS? (If respondent says he she is paid about $6.35/hr, then code $6.35)
...LESS ...MORE	...LESS ...MORE
Code as $1.35 Code as $3.35	Code as $5.35 Code as $7.35

a wider distribution of responses. As with the mailed questionnaire, the two scales were equated by dividing the modified scores by two.

There was no change in the script for Q4 per se. Q4 reads the same for both the standard and modified forms. However, the modified interview schedule gave extended instructions to the interviewer if the respondent hesitated in answering the question on the number of hours worked per week. The instructions told the interviewer to proceed to Q4A which employed a set of dichotomous "unfolding" questions in order to determine the appropriate response category. The "unfolding" of a question proceeded until a terminal box was encountered.

Questions Q5 and Q6 follow from the same rationale underlying the alterations to Q2; changes to Q7 are based on reasoning underlying for modifications to Q4. As with the mailed questionnaire, changes to the question response categories were drawn from the Department of Education.

Results and Discussion

H2 specifically applies to a test of item response rates. However, prior to examining item response rates it would prove helpful to look at the overall response rates for the standard and modified interview schedules. Table 5 displays this information.

Table 5
Overall Response Rates by Format Group (Phone Only)

Format Group	N	Contact Response Rate	t-stat (*)	signif. at
Standard	366	57.30	31.21	.001
Modified	392	63.00		

(*) Two tailed t-test

As can be seen in this table, the overall response rate for the modified interview schedule was significantly higher than for the standard interview. This is somewhat surprising. The argument for the increase in the overall response rate for the modified mail questionnaire lies with the rationale that one objectionable item can transform a wavering respondent into a non-respondent. However in the mailed questionnaire, the respondent has the ability to preview the entire form before the answers the first question. In the phone interview, the respondent does not have this option. It is the interviewer who must motivate/persuade the respondent to participate in the follow-up. Did the modified questionnaire schedule have some unintended (positive) impact on the interviewer? Or is the difference in overall response rate a true difference in the population being measured? If in fact there were differential interviewer influences on the modified questions, i.e., interviewers preferred the modified questions over the standard ones, a potential measure of this impact would be to have the interviewers rate their own preference to each of the question changes. Unfortunately the experimental design was not

constructed to measure the motivational impact of the questionnaire on interviewers (other than to ask interviewers about the technical aspects of administering the schedule). Any true differences in the population should have been accounted for in the random assignment of respondents to interview format within the district cluster.[4]

Table 6 displays the item response rates for the two groups. The results show that for all four of the experimental questions, the modifications resulted in an increase in item response rates. As was the case with the mailed questionnaires, the effectiveness of Q4 was not interpretable due to lack of a proper employment screening question.

Table 7 shows reasons for non-response cited by interviewers of standard and the modified groups. The reasons appear comparable, though modified group interviewers were more conscientious in reporting this information than were the standard group interviewers (9.6% No information versus 38.1% No information). The data from these two tables suggest that the interviewers were comparable in terms of reasons cited for non-response. However, interviewers who used the modified form were more reliable and accurate in reporting the number of phone calls made to contact the respondent.

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[4]Another potential dependent variable in this situation might have been the number of terminations of the phone interviews, i.e., it might be expected that such terminations would be more frequent with the standard interview schedule. However, terminations in either condition were so infrequent that a comparison on this variable was not very fruitful.

Table 6
Item Response Rates for Standard
versus Modified Forms (Phone Only)

Question No.	Standard N=366		Modified N=392		t-stat'†'	signif. at ≤
	N	%	N	%		
Q1. % Continuing Educ	363	99.2	391	99.7	18.60	.001
Q2. Training Related	119'1'	92.0	149'1'	95.5	13.60	.001
Q3. % 4 Year Coll	112'1'	89.6	154'1'	98.7	36.77	.001
Q4. Hours per Week	246'3'	68.5	245'4'	62.5	'7'	
Q5. Work Related	238'5'	96.7	244'5'	99.6	35.76	.001
Q6. Job Satisf.	238'5'	96.7	245'5'	100.0	42.42	.001
Q7. Wage	216'5'	87.8	217'5'	88.6	3.78	.001
Q9. % Superv. Cont	178'5'	72.4	200'5'	81.6	29.35	.001
Q10. % Seek Employ	362	98.9	387	98.7	4.85	.001
Q11. % Milt. Serve	364	99.5	386	98.5	27.03	.001
Q12. % Homemaker	361	98.6	383	97.7	17.68	.001
Q13. % Male	366	100.0	389	99.2	34.91	.001
Q14. % White	354	96.7	388	99.0	41.67	.001

'†' Two tailed t-test

'1' For the standard group, 125 of the 366 respondents indicated that they were in a program of higher education.

'2' For the modified group, 156 of the 392 respondents indicated that they were in a program of higher education.

'3' Because no screening question is asked of respondents as to whether or not they work, the denominator used is the overall N for the subgroup of standard (N=366).

'4' Because no screening question is asked of respondents as to whether or not they work, the denominator used is the overall N for the subgroup of modified (N=392).

'5' The denominator here is 246, the number of respondents who gave an answer to Q4 on the number of hours worked per week.

'6' The denominator here is 245, the number of respondents who gave an answer to Q4 on the number of hours worked per week.

'7' No T-statistic was calculated for this item due to lack of a screening question for Q4 (Hours per Week).

Table 7
Reasons for Non-Contact
by Standard and Modified Groups (Phone Only)

Reasons for Non-Contact	Standard Interviewers		Modified Interviewers	
	N	%	N	%
Temporarily Away from Residence	46	17.2	65	28.3
Phone Number Changed	39	14.5	49	21.3
Phone Disconnected	26	9.7	32	13.9
Moved - No Forwarding Address	12	4.5	14	6.1
No Phone	15	5.6	13	5.7
Moved Out of Calling Area	17	6.3	14	6.1
Ineligible for Survey	5	1.9	7	3.0
Phone Busy	3	1.1	13	5.7
Other	3	1.1	1	0.4
No information	102	38.1	22	9.6
Total	268	100.0	230	100.0

Central Tendency Measures (Phone)

Table 8 shows the means for continuous variables and proportions for dichotomous variables in the standard and modified groups (Phone Only). The means and proportions of the phone standard/modified groups parallel those for the mail standard/modified groups. As was the case for the mailed version of the format changes, the standard group gave slightly higher ratings to attitudinal variables, Q5 and Q6, but lower ratings to Q2. A larger proportion of respondents from the modified form group were in a program of higher education (39.9% versus 34.4% for the standard group), but smaller proportions from this same group were

Table 8
Comparison of Responses for Standard versus Modified Samples (Phone Only)

Question No.	Overall Census			Standard Sample			Modified Sample			Deff	t-stat'†'	signif. at ≤
	Mean	SE	N	Mean	SE	N	Mean	SE	N			
Q1. % Continuing Educ	.437	.003	37528	.344	.042	363	.399	.027	391	1.25	19.27	.001
Q2. Training Related	2.10	.019	16124	2.33	.094	118	1.64	.427	148	9.07	6.33	.001
Q3. % 4 Year Coll	.300	.000	15970	.330	.134	112	.273	.059	154	3.07	2.68	.008
Q4. Hours per Week	34.71	.074	23234	34.66	.652	246	35.28	.538	245	.512	16.06	.001
Q5. Work Related'‡'	2.41	.018	21970	2.33	.094	243	2.61	.173	250	1.17	20.72	.001
Q6. Job Satisf.'‡'	1.86	.014	21640	1.92	.112	242	2.04	.355	250	6.37	2.02	.042
Q7. Wage	4.16	.014	17824	4.17	.004	219	4.39	.005	223	.337	391.95	.001
Q9. % Superv. Cont	.657	.000	15066	.770	.052	178	.655	.084	200	5.81	6.72	.001
Q10. % Seek Employ	.387	.000	36305	.345	.055	362	.388	.074	387	2.54	5.69	.001
Q11. % Milt. Serve	.058	.000	36424	.060	.026	364	.036	.017	386	.561	20.09	.001
Q12. % Homemaker	.084	.000	35960	.130	.027	361	.094	.029	383	.026	108.51	.001
Q13. % Male	.487	.000	38960	.473	.044	366	.491	.017	389	.567	9.95	.001
Q14. % White	.885	.000	38271	.963	.011	354	.966	.011	388	.448	5.54	.001

'†' Two tailed t-test is for "standard" versus "modified" districts
'‡' Scale adjusted for the modified group by taking 1-8 rating and dividing it by two in order to equate to standard group scale.

in college (27.3% versus 33.3%). Larger proportions of respondents from the modified group were working, working longer hours (35.28 versus 34.66 for the standard group) and earning more ($4.39 per hour versus $4.17 per hour).

Respondents from the modified group expressed less desire to have their employers contacted by an outside agency for the employer follow-up than did the respondents from the standard group (65.5% versus 77.0%). Moreover, a greater proportion of respondents from the modified group were looking for jobs (38.8% versus 34.5% for the standard group), were male (49.1% versus 47.3%) and white (96.6% versus 96.3%). Smaller proportions of the modified group, however, were in the military service (3.6% versus 6.0%) or were homemakers (9.4% versus 13.0%). As was the case with the Mail Only sample, respondents within districts were allocated to format type through half-sampling. Therefore the means and proportions presented in Table 8 should not have been confounded with district effects. Table 8 suggests that different subclasses of respondents were represented by the results to the modified and standard interview schedules. It may be possible to modify the interview format to capture subclasses of respondents which, based on school record data, are not proportionally represented on the annual follow-up census.

Dispersion of the Response Distribution

The last section of this paper deals with the response distributions for the attitudinal variables for both the standard and modified forms. Earlier it was hypothesized that more careful consideration of the answers provided in the interview would lead to a

significantly greater variance in the modified form group for the attitudinal variables. Tables 9 and 10 shows Hartley's procedure applied to the three attitudinal variables (Q2, Q5, and Q6). Tests for demographic variables (Q4 and Q7) are also provided as a basis of comparison. As can be seen in the two tables the variance patterns for both modes of data collection were very similar. In the case of the attitudinal variables, the modified versions of the questions elicited a larger variance; however, only in the case of Q6 (Job Satisf.) for the mail questionnaire was the variance significantly larger. For the demographic variable Q7 (Wage), the variance was significantly larger. In this case the answers to the modified version of Q7 were more widely distributed about the mean than were the responses for the standard form of the question.

Table 9
Computed Variance for Selected Demographic and Attitudinal Variables for Standard/Modified Groups (Mail Only)

Quest No.	Standard Var.	Modified Var.	N	F	signif. at
Attitudinal Variables					
Q2. Training Related	1.25	1.32	272	1.06	ns
Q5. Work Related	1.25	1.42	224	1.14	ns
Q6. Job Satisf.	.796	.138	213	5.77	.001
Demographic Variables					
Q4. Hours per Week	180.20	229.52	213	1.27	ns
Q7. Wage	36.12	14.36	198	2.52	.05

Table 10
Computed Variance for Selected Demographic and Attitudinal Variables for Standard/Modified Groups (Phone Only)

Quest No.	Standard Var.	Modified Var.	N	F	signif. at
Attitudinal Variables					
Q2. Training Related	1.06	1.51	266	1.42	ns
Q5. Work Related	1.06	1.69	368	1.39	ns
Q6. Job Satis.	.992	1.54	429	1.55	ns
Demographic Variables					
Q4. Hours per Week	97.46	108.16	491	1.11	ns
Q7. Wage	1.54	3.42	442	2.22	.05

Tables 11-16 are a more detailed look at the response distributions for the modified questionnaires. Table 11 shows the distributions for Q2 and Q5 (Mail and Phone) and Q6 (Phone Only). Of particular interest was the tendency of modified mail and phone respondents to choose the first or last steps in the ladder. There is recent work by Miller and his associates which shows that respondents demonstrate a tendency to choose response categories which are labeled.

Table 11
Distribution of Responses for Standard and Modified
Questions Q2 and Q5 (Mail and Phone) and Q6 (Phone Only)

Question No.	STANDARD				MODIFIED							
					A lot							None
	A lot (1)	Some (2)	Hardly any (3)	None (4)	1	2	3	4	5	6	7	8
Mail												
Q2. Freq	23	40	11	24	25	35	19	23	18	16	13	24
%	23.2	40.4	11.1	24.2	14.5	20.2	11.0	13.3	10.4	9.2	7.5	13.9
Q5. Freq	22	25	12	30	24	7	11	17	8	15	14	29
%	24.2	27.5	13.2	33.0	19.2	5.6	8.8	13.6	6.4	12.0	11.2	23.2
Phone												
Q2. Freq	26	50	19	23	73	10	9	10	11	3	5	27
%	22.0	42.4	16.1	19.5	49.3	6.8	6.1	6.8	7.4	2.0	3.4	18.2
Q5. Freq	74	57	38	73	60	10	15	13	21	7	9	115
%	30.5	23.5	15.6	30.4	24.0	4.0	6.0	5.2	8.4	2.8	3.6	46.0
Q6. Freq	99	86	29	28	65	31	30	27	19	7	10	61
%	40.9	35.5	12.0	11.6	26.0	12.4	12.0	10.8	7.6	2.8	4.0	24.4

Tables 12 and 13 display the distributions of responses for Q4. Note that for the phone distribution, the unfolding technique was only used a total of nine times.

Table 14 shows the distribution of responses for Q6 (Mail Only-see Table 11 for the distribution of this variable for the phone group). The two distributions for the format change were virtually identical. It appears that the graphic change in the mail group had little effect on the response distribution.

Tables 15 and 16 exhibit the response distributions for Q7. The use of the unfolding question in the phone interviews occurred 22 times. It seems that the unfolding technique was required more often for Q7 than for Q4, perhaps because income information is more sensitive than employment data.

Table 12
Distribution of Responses for Modified Question Q4
(Mail Only)

Modified Q4.	1-10	11-20	21-30	31-34	35+
Freq.	2	5	8	4	41
%	3.3	8.3	13.3	6.7	68.3

Table 13
Distribution of Responses for Modified Question Q4
(Phone-Attempted when Respondent Failed
to Give an Immediate Answer)

Modified Q4	5	15	25	40
Freq	1	5	1	2
%	28.6	61.9	4.8	4.8

Table 14
Distribution of Responses for Standard and Modified
Question 6 (Mail Only)

Standard/ Modified	Very Satisfied	Somewhat Satisfied	Not Very Satisfied	Not at All Satisfied
Standard Freq	33	36	13	6
%	37.5	40.9	14.8	6.8
Modified Freq	51	53	15	6
%	40.8	42.4	12.0	4.8

Table 15
Distribution of Responses for Modified Question Q7
(Mail Only)

Modified Q7.	0.01-2.34	2.35-3.34	3.35-4.34	4.35-5.34	5.35+
Freq	1	7	26	18	7
%	1.7	11.9	44.1	30.5	11.9

Table 16
Distribution of Responses for Modified Question Q7
(Phone-Attempted When Respondent Failed
to Give an Immediate Answer)

Modified Q7.	3.35	4.35	5.35	7.35
Freq	6	13	1	1
%	28.6	61.9	4.8	4.8

Summary

Hypothesis 1 was confirmed; the alterations on the mailed questionnaire seem to have evoked higher item response rates for questions Q2, and Q4-Q6. Also, the overall response rate for the modified group was higher. Perhaps some of the modifications reduced the impact of "objectionable" items and therefore encouraged targeted students who might have been non-respondents on the standard form to complete the modified form.

Hypothesis 2 was not confirmed. The modifications to the telephone interview schedule did not significantly affect item non-response. While the overall response rate for the modified group was higher, there is no logical reason why this should be the case unless interviewers reacted favorably to the modified form. Whereas encountering even one objectionable item on a mailed questionnaire might lead a respondent not to complete and return the form, he hasn't this option in a telephone interview. It is only if the interviewers react positively to the form that one might expect to see improvement in

overall response rates for the modified group. Unfortunately, no systematic measures of interviewer attitudes towards the standard or modified forms were attempted.

The modified version of Q2 was effective in eliciting increased item response rates. However changes to Q4–Q7 did not appear to have been helpful in this respect. The extensions of Q4 and Q7 were moderately successful in increasing item response rates. The extended version of Q4 (Q4A; Hours per Week) was used nine times by interviewers. Additionally the extensions to Q7 (Wage) were invoked 22 times for hesitant respondents. The use of the unfolded form for these two questions suggests that the modified form might have had some limited utility in getting "reluctant" respondents to answer sensitive items.

It was noted throughout the discussion of mail/phone standard/modified forms that lack of a screening question for employment seriously hampered a straightforward interpretation of the data. Changes in this question have been made and should remedy future problems.

Hypothesis 3 was not confirmed. While for both modes of data collection the response variance was wider on attitudinal questions using the modified form, it was not significantly so. The lack of differences in this respect intimates that increasing the range of response possibilities will provide no more precise information than is currently being gathered.

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APPENDIX A

Standard Mail Form

VE 4045-A
12/80

Michigan Department of Education

SCHOOL DISTRICT LABEL

FOLLOW-UP SURVEY OF FORMER STUDENTS

We are writing you, as a former high school student, to ask your help in improving some of the courses you took in school. By answering a few questions about what you are doing now and giving us your opinions, you can help us plan to make the courses better for students in the future.

The courses we are writing you about are those that you took in "vocational education" in order to get ready for a job after high school. The courses you took might have been in auto mechanics, office work, marketing and selling, agricultural production, welding and cutting, data processing, child care, small engine repair, electronics, food management, cosmetology, or one of many others possible.

Please take a few minutes to answer the questions and mail back your answers and opinions. We're counting on your help.

Thank you very much.

Please answer the questions by putting an "x" in the box next to the answer of YOUR CHOICE or by filling in the blank.

1. Are you now attending a school or college, or enrolled in a training program, or working as an apprentice?
(Check ONLY ONE.)

Yes 15 [1] No 15 [2]

If you answered "no", please turn the page and go to Question 4.

If you answered "yes", please go on to Question 2 below.

2. In your major area of study (or training), how much do you use the vocational training you received in your high school or area vocational education center?
(Check ONLY ONE.)

16 [1] A lot
[2] Some
[3] Hardly any
[4] None

3. Check the type of school or program you are now attending.
(Check ONLY ONE.)

17 [1] High school
[2] 1-year college vocational-technical program
[3] 2-year college vocational-technical program
[4] 2-year college liberal arts program
[5] 4-year college or university
[6] Business or trade school
[7] Apprentice Program
[8] Other _____

Please go to Question 4 on the next page.

BEST COPY AVAILABLE

4. If you are working for pay, about how many HOURS PER WEEK do you work? Write the number of hours per week in the box.

18 ☐

If you are not working for pay, please go to Question 10 on the next page.

If you are working for pay, please go to Question 5 below.

5. On your present job, how much do you use the vocational training you received in your high school or area vocational education center? (Check ONLY ONE.)

20 ☐ 1 A lot
☐ 2 Some
☐ 3 Hardly any
☐ 4 None

6. Overall, how satisfied are you with your present job? (Check ONLY ONE.)

21 ☐ 1 Very satisfied
☐ 2 Somewhat satisfied
☐ 3 Not very satisfied
☐ 4 Not at all satisfied

7. On my present job I am paid about

22 $ _____ per hour.

8.

Please fill in the name of the company where you work		
Company's Street Address		
City	State	Zip Code
Please fill in the name of your job		
Please list the three most important things you do on your job 1.	26	LEAVE BLANK
2.	31	
3.		
Please fill in the name of your job supervisor		

9. The high school job training that you and other former students received usually gets good ratings when we ask supervisors. We may need to ask your supervisor about the training you received in high school. Is that OK with you?

Yes 36 ☐ 1 Please fill in your supervisor's work phone number ( ) _____
Area Code

No ☐ 2

Please go on to Question 10.

BEST COPY AVAILABLE

10. Are you looking for a job?
(Check ONLY ONE.)

Yes 37 [1] No [2]

11. Are you in the military service?
(Check ONLY ONE.)

Yes 38 [1] No [2]

12. Are you a homemaker?
(Check ONLY ONE.)

Yes 39 [1] No [2]

13. What is your sex? 40 [1] Male
[2] Female

14. Please identify yourself as a member of one of the groups of people listed below.
(Check ONLY ONE.)

41 [1] American Indian or Alaskan Native
[2] Asian or Pacific Islander
[3] Black, not of Hispanic Origin
[4] Hispanic
[5] White, not of Hispanic Origin

Please go to Question 15.

(SCHOOL USE ONLY)

1. Yes 42 [1] C 43 [1] or L 43 [2]

No 42 [2]

2. Yes 44 [1] No 44 [2] 3. Co-op Yes 45 [1] No 45 [2]

4. Yes 46 [1] H 47 [1] or LEP 48 [1] or D 49 [1]
No [2]

5. Yes 50 [1] H 51 [1] or LEP 51 [2] or D 51 [3]
No 50 [2]

6. OE 52 [ ][ ].[ ][ ][ ][ ] 7. PSN 58 [ ][ ][ ][ ][ ][ ]

Name of Program _____

8. If an AREA CENTER or SHARED TIME program, report respondent's <u>home district</u> identification. 63 CEPD [ ] CODE [ ][ ][ ][ ]

9. Telephone 70 [1] Mail 70 [2]

15. COMMENTS

Please make any comments and/or suggestions you believe are needed to improve some of the courses you took or services you received while in high school. Also, add any general comments or suggestions you have about your school experience.

APPENDIX B

Modified Mail Form

VE 4045-A
12/80

Michigan Department of Education

SCHOOL DISTRICT LABEL

FOLLOW-UP SURVEY OF FORMER STUDENTS

We are writing you, as a former high school student, to ask your help in improving some of the courses you took in school. By answering a few questions about what you are doing now and giving us your opinions, you can help us plan to make the courses better for students in the future.

The courses we are writing you about are those that you took in "vocational education" in order to get ready for a job after high school. The courses you took might have been in auto mechanics, office work, marketing and selling, agricultural production, welding and cutting, data processing, child care, small engine repair, electronics, food management, cosmetology, or one of many others possible.

Please take a few minutes to answer the questions and mail back your answers and opinions. We're counting on your help.

Thank you very much.

Please answer the questions by putting an "x" in the box next to the answer of YOUR CHOICE or by filling in the blank.

1. Are you now attending a school or college, or enrolled in a training program, or working as an apprentice?
(Check ONLY ONE.)

Yes 15 [1] No 15 [2]

If you answered "no", please turn the page and go to Question 4.

If you answered "yes", please go on to Question 2 below.

2. Please think about how much you use the vocational training you received in your high school or area vocational center in your major area of study. The ladder stands for how much you use that training in your major area of study. The top step means you use the training "A Lot". The bottom step means you use "None" of your training. Mark the step on the ladder which shows how much you use your vocational training.

16

A lot

None

3. Check the type of school or program you are now attending.
(Check ONLY ONE.)

17
- [1] High school
- [2] 1-year college vocational-technical program
- [3] 2-year college vocational-technical program
- [4] 2-year college liberal arts program
- [5] 4-year college or university
- [6] Business or trade school
- [7] Apprentice Program
- [8] Other _____

Please go to Question 4 on the next page.

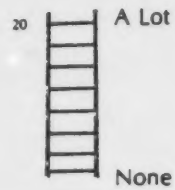
4. If you are working for pay, about how much hours/week do you work? (Mark the correct box)

18 ☐ Not Working
☐ 1-10 hours
☐ 11-20 hours
☐ 21-30 hours
☐ 31-34 hours
☐ 35 + hours

If you are not working for pay, please go on to Question 10 on next page.

If you are working for pay, please go to Question 5 below.

5. Please think about how much you use the vocational training you received in your high school or area vocational center on your present job. The ladder stands for how much you use that training on your present job. The top step means you use the training "A Lot". The bottom step means you use "None" of your training. Mark the step on the ladder which shows how much you use your vocational training.



6. Overall, how satisfied are you with your present job? (Check only ONE box)

21 ☐ Very Satisfied ☐ Somewhat Satisfied ☐ Not Very Satisfied ☐ Not at all Satisfied

7. On my present job, I am paid . . . (Mark the correct box)

22 ☐ 0.01-2.34 per hour
☐ 2.35-3.34 per hour
☐ 3.35-4.34 per hour
☐ 4.35-5.34 per hour
☐ 5.35 + per hour

8.

Please fill in the name of the company where you work		
Company's Street Address		
City	State	Zip Code
Please fill in the name of your job		
Please list the three most important things you do on your job 1.	26	LEAVE BLANK
2.	31	
3.		
Please fill in the name of your job supervisor		

9. The high school job training that you and other former students received usually gets good ratings when we ask supervisors. We may need to ask your supervisor about the training you received in high school. Is that OK with you?

Yes 36 ☐ 1 Please fill in your supervisor's work phone number ( ) _____
Area Code

No ☐ 2

Please go on to Question 10.

10. Are you looking for a job?
(Check ONLY ONE.)

Yes 37 [1] No [2]

11. Are you in the military service?
(Check ONLY ONE.)

Yes 38 [1] No [2]

12. Are you a homemaker?
(Check ONLY ONE.)

Yes 39 [1] No [2]

13. What is your sex? 40 [1] Male
[2] Female

14. Please identify yourself as a member of one of the groups of people listed below.
(Check ONLY ONE.)

41 [1] American Indian or Alaskan Native
[2] Asian or Pacific Islander
[3] Black, not of Hispanic Origin
[4] Hispanic
[5] White, not of Hispanic Origin

Please go to Question 15.

(SCHOOL USE ONLY)

1. Yes 42 [1] C 43 [1] or L 43 [2]

No 42 [2]

2. Yes 44 [1] No 44 [2] 3. Co-op Yes 45 [1] No 45 [2]

4. Yes 46 [1] H 47 [1] or LEP 48 [1] or D 49 [1]
No [2]

5. Yes 50 [1] H 51 [1] or LEP 51 [2] or D 51 [3]
No 50 [2]

6. OE 52 [ ][ ] [ ][ ][ ][ ] 7. PSN 58 [ ][ ][ ][ ][ ][ ]

Name of Program _____

8. If an AREA CENTER or SHARED TIME program, report respondent's home district identification. 63 CEPD [ ] CODE [ ][ ][ ][ ]

9. Telephone 70 [1] Mail 70 [2]

15. COMMENTS

Please make any comments and/or suggestions you believe are needed to improve some of the courses you took or services you received while in high school. Also, add any general comments or suggestions you have about your school experience.

APPENDIX C

Standard Phone Script

APPENDIX C

SAMPLE

SCRIPT FOR TELEPHONE SURVEY

INTRODUCTION

HELLO. MY NAME IS ..... I AM (A(N) .....(job title)..... AT ..... HIGH SCHOOL (VOCATIONAL CENTER) IN ..... MAY I SPEAK TO .....(name of respondent).....?

(If person is not home, determine best time for return call.)

If person has left home...

) because of military service or going away to school, ask mother or father how he/she can be contacted.

) because of marriage, ask new name, address, and phone number and contact.

) for other reasons, ask new address and phone number and contact.

Respondent is Contacted....

Reintroduce yourself if necessary; otherwise, proceed with interview.

WE'RE DOING A SURVEY OF LAST YEAR'S STUDENTS WHO COMPLETED (left or enrolled can be used, also) VOCATIONAL PROGRAMS AT .....SCHOOLS. OUR RECORDS SHOW THAT YOU WERE ENROLLED IN A .....name of program)..... PROGRAM LAST YEAR AT ..... HIGH SCHOOL. IS THIS CORRECT? (If person answers 'yes' proceed with

conversation. If 'no' thank him/her courteously for their time.)

THIS SURVEY IS BEING DONE TO GIVE US AN IDEA OF WHAT OUR FORMER VOCATIONAL STUDENTS ARE DOING. WILL YOU TAKE A COUPLE OF MINUTES TO ANSWER SOME QUESTIONS ABOUT WHAT YOU ARE DOING?

Q1. ARE YOU NOW ATTENDING A SCHOOL OR COLLEGE, OR ENROLLED IN A TRAINING PROGRAM, OR WORKING AS AN APPRENTICE? (Check the survey form box corresponding to the appropriate response)

...YES ...NO----->GO TO Q4.

Q2. IN YOUR MAJOR AREA OF STUDY (OR TRAINING), HOW MUCH DO YOU USE THE VOCATIONAL TRAINING YOU RECEIVED IN HIGH SCHOOL? (only <u>one</u> response)

...A LOT

...SOME

...HARDLY ANY

...NONE

Q3. WHAT TYPE OF SCHOOL OR PROGRAM ARE YOU NOW ATTENDING? IS IT A (only <u>one</u> response)

...HIGH SCHOOL?

...1 YEAR COLLEGE VOCATIONAL-TECHNICAL PROGRAM?

...2 YEAR COLLEGE VOCATIONAL TECHNICAL PROGRAM?

...2 YEAR COLLEGE LIBERAL ARTS PROGRAM?

...4 YEAR COLLEGE OR UNIVERSITY?

...BUSINESS OR TRADE SCHOOL?

...APPRENTICE PROGRAM?

...OTHER.....?

Q4. IF YOU ARE WORKING FOR PAY, ABOUT HOW MANY HOURS PER WEEK DO YOU WORK?

....HOURS ....NOT WORKING-------->GO TO Q10.

Q5. ON YOUR PRESENT JOB, HOW MUCH DO YOU USE THE VOCATIONAL TRAINING YOU RECEIVED IN YOUR HIGH SCHOOL (OR AREA VOCATIONAL CENTER)? (only one response)

...A LOT

...SOME

...HARDLY ANY

...NONE

Q6. OVERALL HOW SATISFIED ARE YOU WITH YOUR PRESENT JOB? (only one response)

...VERY SATISFIED

...SOMEWHAT SATISFIED

...NOT VERY SATISFIED

...NOT AT ALL SATISFIED

Q7. HOW MUCH ARE YOU PAID PER HOUR ON YOUR PRESENT JOB?

.....PER HOUR

(If respondent gives a weekly or monthly figure, divide the weekly figure by 40 or the monthly figure by 176 to come up with an equivalent hourly wage. If the respondent will not answer, ask whether he will give an hourly wage between ranges.)

UNDER $2	RECORD AS $1.60
$2-$3	$2.50
$3-$4	$3.50
$4-$5	$4.50

$5-$6	$5.50
$6-$7	$6.50
over $7	$7.50

Weekly/Monthly to Hourly Conversion Table

Weekly Income	Hourly Rate
100	2.50
125	3.13
150	3.75
175	4.38
200	5.00
225	5.63
250	6.25
275	6.88
300	7.50
325	8.13
350	8.75
375	9.38
400	10.00

Monthly Income	Hourly Rate
400	2.27
450	2.56
500	2.84
550	3.13
600	3.41
650	3.69
700	3.98
750	4.26
800	4.55
850	4.83
900	5.11
950	5.40
1000	5.68
1050	5.97
1100	6.31
1150	6.53
1200	6.82
1250	7.10
1300	7.39
1350	7.67
1400	7.95
1450	8.24
1500	8.52
1550	8.81
1600	9.09
1650	9.38

Q8. WE'D NOW LIKE TO ASK YOU SOME QUESTIONS ABOUT WHERE YOU WORK.

Q8A. WHAT IS THE NAME OF THE COMPANY WHERE YOU WORK?

.....

Q8B. WHAT IS THE COMPANY'S STREET ADDRESS?

.....

Q8C. CITY?

.....

Q8D. STATE?

.....

Q8E. ZIP CODE?

.....

Q8F. LIST THE THREE MOST IMPORTANT THINGS YOU DO ON YOUR JOB.

i.....

ii.....

iii.....

Q8G. WHAT IS THE NAME OF YOUR JOB SUPERVISIOR?

.....

Q9. THE HIGH SCHOOL JOB TRAINING THAT YOU AND OTHER FORMER STUDENTS RECEIVED USUALLY GETS GOOD RATINGS WHEN WE ASK SUPERVISORS. WE MAY NEED TO ASK YOUR SUPERVISOR ABOUT THE TRAINING YOU RECEIVED IN HIGH SCHOOL. IS THAT OK WITH YOU?

...YES ...NO-------->GO TO Q10.

Q9A. WHAT IS YOUR SUPERVISOR'S WORK PHONE NUMBER?

( )- -
a/c

Q10. ARE YOU LOOKING FOR A JOB?

...YES ...NO

Q11. ARE YOU IN THE MILITARY?

...YES ...NO

Q12. ARE YOU A HOMEMAKER?

...YES ...NO

Q13. WHAT IS YOUR SEX?

...MALE ...FEMALE

Q14. WHAT RACIAL/ETHNIC GROUP DO YOU IDENTIFY WITH? (only one response)

...AMERICAN INDIAN OR ALASKAN NATIVE

...ASIAN OR PACIFIC ISLANDER

...BLACK, NOT OF HISPANIC ORIGIN

...HISPANIC

...WHITE, NOT OF HISPANIC ORIGIN

Closing

(Quickly check questionnaire for completeness of responses) THANK YOU FOR TAKING TIME TO ANSWER THESE QUESTIONS. WE REALLY APPRECIATE YOUR HELP. GOODBYE.

APPENDIX D

Modified Phone Script

APPENDIX D

SCRIPT FOR TELEPHONE SURVEY

INTRODUCTION

HELLO. MY NAME IS ..... I AM (A(N) .....(job title)..... AT ..... HIGH SCHOOL (VOCATIONAL CENTER) IN ..... MAY I SPEAK TO .....(name of respondent).....?

(If person is not home, determine best time for return call.)

If person has left home...

) because of military service or going away to school, ask mother or father how he/she can be contacted.

) because of marriage, ask new name, address, and phone number and contact.

) for other reasons, ask new address and phone number and contact.

Respondent is Contacted....

Reintroduce yourself if necessary; otherwise, proceed with interview.

WE'RE DOING A SURVEY OF LAST YEAR'S STUDENTS WHO COMPLETED

(left or enrolled can be used, also) VOCATIONAL PROGRAMS AT .....SCHOOLS. OUR RECORDS SHOW THAT YOU WERE ENROLLED IN A .....name of program)..... PROGRAM LAST YEAR AT ..... HIGH SCHOOL. IS THIS CORRECT? (If person answers 'yes' proceed with conversation. If 'no' thank him/her courteously for their time.)

THIS SURVEY IS BEING DONE TO GIVE US AN IDEA OF WHAT OUR FORMER VOCATIONAL STUDENTS ARE DOING. WILL YOU TAKE A COUPLE OF MINUTES TO ANSWER SOME QUESTIONS ABOUT WHAT YOU ARE DOING?

Q1. ARE YOU NOW ATTENDING A SCHOOL OR COLLEGE, OR ENROLLED IN A TRAINING PROGRAM, OR WORKING AS AN APPRENTICE? (Check the survey form box corresponding to the appropriate response)

...YES ...NO----->GO TO Q4.

Q2. PLEASE THINK ABOUT HOW MUCH YOU USE THE VOCATIONAL TRAINING YOU RECEIVED IN YOUR HIGH SCHOOL OR AREA VOCATIONAL CENTER IN YOUR MAJOR AREA OF STUDY. (Pause). NOW IMAGINE A LADDER WITH EIGHT STEPS ON IT WHICH STANDS FOR HOW MUCH YOU USE THAT TRAINING IN YOUR MAJOR AREA OF STUDY. THE TOP STEP MEANS THAT YOU USE THAT TRAINING IN YOUR MAJOR AREA OF STUDY "A LOT". THE BOTTOM STEP MEANS YOU USE "NONE" OF YOUR TRAINING. WHICH STEP WOULD YOU SAY STANDS FOR HOW MUCH YOU USE YOUR TRAINING?

...8 (OR TOP STEP)

...7

...6

...5

...4

...3

...2

...1 (OR BOTTOM STEP)

Q3. WHAT TYPE OF SCHOOL OR PROGRAM ARE YOU NOW ATTENDING? IS IT A (only one response)

...HIGH SCHOOL?

...1 YEAR COLLEGE VOCATIONAL-TECHNICAL PROGRAM?

...2 YEAR COLLEGE VOCATIONAL TECHNICAL PROGRAM?

...2 YEAR COLLEGE LIBERAL ARTS PROGRAM?

...4 YEAR COLLEGE OR UNIVERSITY?

...BUSINESS OR TRADE SCHOOL?

...APPRENTICE PROGRAM?

...OTHER.....?

Q4. IF YOU ARE WORKING FOR PAY, ABOUT HOW MANY HOURS PER WEEK DO YOU WORK?

....HOURS ....NOT WORKING------->GO TO Q10.

(If the respondent does not answer or says "don't know", use the following procedure)

Q4A. WOULD YOU SAY THAT YOU ARE WORKING MORE THAN 20 HOURS PER WEEK OR LESS? (If respondent says he/she is working about 20 hours, then code as 20 hours.)

...LESS THAN 20 HOURS		...MORE THAN 20 HOURS	
WOULD YOU SAY THAT YOU ARE WORKING MORE THAN TEN HOURS PER WEEK OR LESS? (If respondent says he/she is working about 10 hrs/wk, then code as 10 hrs.)		WOULD YOU SAY THAT YOU ARE WORKING MORE THAN THIRTY-FIVE HOURS PER WEEK OR LESS? (If respondent says he/she is working about 35 hrs/wk, then code as 35 hrs.)	
...LESS	...MORE	...LESS	...MORE
Code as 5	Code as 15	Code as 25	Code as 40

Q5. PLEASE THINK ABOUT HOW MUCH YOU USE THE VOCATIONAL TRAINING YOU RECEIVED IN YOUR HIGH SCHOOL OR AREA VOCATIONAL CENTER ON YOUR PRESENT JOB. (Pause). NOW IMAGINE A LADDER WITH EIGHT STEPS ON IT WHICH STANDS FOR HOW MUCH YOU USE THAT TRAINING ON YOUR PRESENT JOB. THE TOP STEP MEANS THAT

YOU USE THAT TRAINING ON YOUR PRESENT JOB "A LOT". THE BOTTOM STEP MEANS YOU USE "NONE" OF YOUR TRAINING. WHICH STEP WOULD YOU SAY STANDS FOR HOW MUCH YOU USE YOUR TRAINING?

...8 (OR TOP STEP)

...7

...6

...5

...4

...3

...2

...1 (OR BOTTOM STEP)

Q6. PLEASE THINK ABOUT HOW SATISFIED YOU ARE WITH YOUR PRESENT JOB OVERALL. AS IN THE QUESTION BEFORE, IMAGINE THAT SAME LADDER WITH EIGHT STEPS. THE TOP STEP NOW MEANS THAT YOU ARE "EXTREMELY SATISFIED" WITH YOUR PRESENT JOB OVERALL. THE BOTTOM STEP MEANS YOU ARE "EXTREMELY DISSATISFIED" WITH YOUR PRESENT JOB. WHICH STEP WOULD YOU SAY STANDS FOR HOW SATISFIED YOU ARE WITH YOUR PRESENT JOB?

...8 (OR TOP STEP)

...7

...6

...5

...4

...3

...2

...1 (OR BOTTOM STEP)

Q7. HOW MUCH ARE YOU PAID PER HOUR ON YOUR PRESENT JOB?

.....PER HOUR

(If respondent gives a weekly or monthly figure, divide the weekly figure by 40 or the monthly figure by 176 to come up with an equivaleent hourly wage. If the respondent will not answer or says "don"t know", then use the following procedure in Q7A.)

Q7A. WOULD YOU SAY THAT YOUR ARE PAID MORE THAN $4.35 PER HOUR OR LESS? (If respondent says he.she is paid about $4.35/hour, then code $4.35.)

...LESS THAN $4.35

WOULD YOU SAY THAT YOU ARE PAID MORE THAN $2.35 PER HOUR OR LESS? (If respondent says he she is paid about $2.35/hr, then code $2.35)

...LESS ...MORE

Code as $1.35 Code as $3.35

...MORE THAN $4.35

WOULD YOU SAY THAT YOU ARE PAID MORE THAN $6.35 PER HOUR OR LESS? (If respondent says he she is paid about $6.35/hr, then code $6.35)

...LESS ...MORE

Code as $5.35 Code as $7.35

Weekly to Hourly Conversion Table

Weekly Income	Hourly Rate
100	2.50
125	3.13
150	3.75
175	4.38
200	5.00
225	5.63
250	6.25
275	6.88
300	7.50
325	8.13
350	8.75
375	9.38
400	10.00

Monthly to Hourly Conversion Table

Monthly Income	Hourly Rate
400	2.27
450	2.56
500	2.84
550	3.13
600	3.41
650	3.69
700	3.98
750	4.26
800	4.55
850	4.83
900	5.11
950	5.40
1000	5.68
1050	5.97
1100	6.31
1150	6.53
1200	6.82
1250	7.10
1300	7.39
1350	7.67
1400	7.95
1450	8.24
1500	8.52
1550	8.81
1600	9.09
1650	9.38

Q8. WE'D NOW LIKE TO ASK YOU SOME QUESTIONS ABOUT WHERE YOU WORK.

Q8A. WHAT IS THE NAME OF THE COMPANY WHERE YOU WORK?

.....

Q8B. WHAT IS THE COMPANY'S STREET ADDRESS?

.....

Q8C. CITY?

.....

Q8D. STATE?

.....

Q8E. ZIP CODE?

.....

Q8F. WHAT IS THE NAME OF YOUR JOB?

.....

Q8G. LIST THE THREE MOST IMPORTANT THINGS YOU DO ON YOUR JOB.

i.....

ii.....

iii.....

Q8H. WHAT IS THE NAME OF YOUR JOB SUPERVISIOR?

.....

Q9. THE HIGH SCHOOL JOB TRAINING THAT YOU AND OTHER FORMER STUDENTS RECEIVED USUALLY GETS GOOD RATINGS WHEN WE ASK SUPERVISORS. WE MAY NEED TO ASK YOUR SUPERVISOR ABOUT THE TRAINING YOU RECEIVED IN HIGH SCHOOL. IS THAT OK WITH YOU?

...YES ...NO-------->GO TO Q10.

Q9A. WHAT IS YOUR SUPERVISOR'S WORK PHONE NUMBER?

( )- -
a/c

Q10. ARE YOU LOOKING FOR A JOB?

...YES ...NO

Q11. ARE YOU IN THE MILITARY?

...YES ...NO

Q12. ARE YOU A HOMEMAKER?

...YES ...NO

Q13. WHAT IS YOUR SEX?

...MALE ...FEMALE

Q14. WHAT RACIAL/ETHNIC GROUP DO YOU IDENTIFY WITH? (only one response)

...AMERICAN INDIAN OR ALASKAN NATIVE

...ASIAN OR PACIFIC ISLANDER

...BLACK, NOT OF HISPANIC ORIGIN

...HISPANIC

...WHITE, NOT OF HISPANIC ORIGIN

Closing

(Quickly check questionnaire for completeness of responses) THANK YOU FOR TAKING TIME TO ANSWER THESE QUESTIONS. WE REALLY APPRECIATE YOUR HELP. GOODBYE.